

IN THE CLAIMS

- 1 1. (previously presented) A telecommunications system suitable for transmitting real-time data  
2 and non-real-time packet data, comprising  
3 a first and a second communication station, and  
4 a dual mode channel for communication of both the real-time and the non-real-time data  
5 from the first to the second station,  
6 wherein  
7 the first station comprises a first transceiver which is operable to transmit both the real-  
8 time and the non-real-time data,  
9 the second station comprises a second transceiver which is operable to receive the real-  
10 time and/or the non-real-time data, and  
11 the first station further comprises a controller for generating an output data stream  
12 comprising the real-time data, the controller also allocating non-real-time packet data to the  
13 output data stream when the data rate of the real-time data is less than the full data capacity of  
14 the dual mode channel, which output data stream is transmitted by the transceiver over the  
15 channel  
16 the first station comprises a speech coding system which prepares the speech data for  
17 transmission from a speech input, and  
18 the controller receives timing information from the speech coding system indicating the  
19 timing of interruptions in the speech data stream.

2. (previously presented) A system as claimed in claim 1, wherein the real-time data comprises speech data.

3. (canceled)

4. (previously presented) A system as claimed in claim 1, wherein the first transceiver comprises a buffer for storing and non-real-time packet data for transmission during reductions in the data rate of the real-time data.

5. (previously presented) A system as claimed in claim 1, where the first station comprises a base stations, and the second station comprises a mobile station of a cellular telecommunications network.

6. (previously presented) a telecommunications station for use in a system as claimed in claim 1.

7. (previously presented) A method of operating a telecommunications system suitable for transmitting real-time data and non-real-time packet data, the system comprising a first and a second communication station and having a dual mode channel for communication of both the real-time and non-real-time data from the first to the second station, the first station comprising a first transceiver which is operable to transmit both the real-time and the non-real-time data, the second station comprising a second transceiver which is operable to receive the real-time and/or non-real-time data, wherein the method comprises

8 controlling the allocation by the first transceiver of the non-real-time packet data to an  
9 output data stream comprising the real-time data when the data rate of the real-time data stream  
10 is less than the full data capacity of the dual mode channel, and  
11 controlling the first transceiver to transmit the output data stream over the channel  
12 wherein the real-time data comprises speech data and the first station comprises a speech  
13 coding system which prepares the speech data for transmission from a speech input, and the  
14 method further comprises determining from the speech coding system the timing of interruptions  
15 in the speech data stream.

8. (cancelled)

9. (previously presented) A method as claimed in claim 7 wherein the first station comprises a  
buffer, characterised by storing the non-real-time packet data in the buffer for transmission  
reductions in the data rate at the real-time data. *jury during*

10. (previously presented) The system of claim 1, wherein the output data stream resides in a  
single channel and comprises real-time data and non-real-time packet data.

11. (previously presented) The method of claim 7, wherein the output data stream resides in a  
single channel and comprises real-time data and non-real-time packet data.

12. (previously presented) A method of transmitting data comprising:

- 2       • allocating at least first, second, and third types of data to a single output data stream, at  
3       least the first type of data being real-time data, and at least the third type of data being  
4       non-real time packet data, the third type of data being added when the data rate of the  
5       first and/or second type of data is less than an expected capacity of a transmission  
6       channel;  
7       • transmitting the single output data stream on a single, multiple-mode channel.

13. (previously presented) The method of claim 12 wherein the first type of data is video and the  
second type of data is voice.

14. (previously presented) A CDMA transmission method comprising:

- 2       • combining data of at least two types into a single output data stream, the at least two  
3       types comprising variable rate real-time data and non-real-time data, the non-real-time  
4       data being added to the output data stream only when an expected capacity of a  
5       transmission channel is greater than the data rate of the real-time data;  
6       • encoding the combined data using a single spreading code, so that the combined data  
7       occupies a single transmission channel; and  
8       • transmitting the encoded data on a single transmission channel.

15. (previously presented) A receiving method comprising:

- 2       • receiving a combined data stream from a transmission channel;  
3       • demodulating the data stream;

- 4       • reading the frame header to determine which frames contain packet data and which  
5       frames contain speech data;  
6       • reconstituting the speech and packet data;  
7       • providing the speech data to a speech decoder; and  
8       • providing a speech output signal and a packet data output signal at distinct output  
9       devices.

1   16. (previously presented) A TDMA transmission method comprising:

- 2       • accumulating non-real-time packet data;  
3       • allocating real-time data to an output data stream;  
4       • determining when the real-time data does not require the full capacity of a transmission  
5       channel;  
6       • allocating the non-real-time packet data to the output stream, when the real-time data  
7       does not require the full capacity;  
8       • allocating output data stream to a channel that occupies more than one slot in a  
9       transmission time frame.

1   17. (currently amended) A TDMA transmission method comprising:

- 2       • accumulating non-real-time packet data;  
3       • ~~variably~~ allocating real-time data and the non-real-time packet data in variable  
4       proportions to multiple time segments within a time frame when the real-time data does  
5       not require the full capacity of a transmission channel; and  
6       • transmitting the time frame.

*El Cont.*  
18-20. (cancelled)

21. (new) The method of claim 16, wherein, when the real-time data does not require full capacity, both real-time and non-real-time data are allocated as a dual mode channel to the output stream.

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